Trends in the development of didactic principles’ content in the theory and practice of the Russian school in the late XIX – early XX centuries

Tendencias en el desarrollo del contenido de los principios didácticos en la teoría y la práctica de la escuela rusa a fines del siglo XIX y principios del XX

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Received: 21/05/2018 • Approved: 03/07/2018

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ABSTRACT:
The article examines the phenomenon of didactic principles in the theory and practice of the Russian school in the late XIX and early XX centuries on the basis of an analysis of historical and pedagogical sources. The urgency of this work lies in the historical and pedagogical analysis of the development, elaboration and ways of implementing the principles of education, which in turn will help to determine the prospects for implementing the system of strategic goals and tactical tasks of the modern concept of education. The identification of trends in the development of didactic principles in the historical period under study allows us to trace the current trends in the development of the theory and practice of Russian education.

Keywords: Principle of teaching, Development trends, principle of accessibility

RESUMEN:
El artículo examina el fenómeno de los principios didácticos en la teoría y la práctica de la escuela rusa a finales del siglo XIX y principios del XX sobre la base de un análisis de fuentes históricas y pedagógicas. La urgencia de este trabajo radica en el análisis histórico y pedagógico del desarrollo, la elaboración y las formas de implementar los principios de la educación, que a su vez ayudarán a determinar las perspectivas para implementar el sistema de objetivos estratégicos y tareas tácticas del concepto moderno de educación. La identificación de tendencias en el desarrollo de principios didácticos en el periodo histórico en estudio nos permite rastrear las tendencias actuales en el desarrollo de la teoría y la práctica de la educación rusa.

Palabras clave: Principio de enseñanza, tendencias de desarrollo, principio de accesibilidad

1. Introduction
In every historical epoch, society and the state present to the school and the entire education system certain requirements, which, in turn, are reflected in the principles of instruction. The historical and pedagogical analysis of the development, development and ways of implementing the principles of education will help to open the prospects for the implementation of the system of strategic goals and tactical tasks of the modern concept of education. At the same time didactic principles are the basis for designing pedagogical technologies, educational results, which, on the whole, determines the quality of Russian education. An important role in the development of the principles of education was played by the ideas of the well-known educators of the past Y.A. Komensky, I.G. Pestalozzi, A. Diesterweg, I.F. Herbart, K.D. Ushinsky.

In the development of the idea of didactic principles, a whole pleiad of Russian scientists contributed to the development of the methodological foundations: the formation of the structure and classification of the principles of instruction (V.E. Gmurman, M.A. Danilov, B.P. Esipov, V.I. Zagvyazinsky, V.V. Kraevsky, D.O. Lordkipanidze, M.I. Makhmutov, I.A. Podolskaya, M.N. Skatkin, etc.), the construction of a system of didactic principles (Yu.K. Babansky, M.A. Danilov, V.I. Zagvyazinsky, V.V. Kraevsky, I.T. Ogorodnikov, M.N. Skatkin, V.A. Slastenin, etc.), the logic of development of individual principles (Sh.I. Ganelin, L.Ya. Zorina, S.B. Ivanov, K.I. Lvov, A.V. Petrov, N.V. Sokolova, G.I. Shchukin, H.J. Liimets, A.S. Shepetov, A.A. Zuker, etc.), search and the development of new principles (V.V. Davydov, L.V. Zankov), the concretization of principles through rules (V.V. Voronov, I.P. Podlasiy, A.V. Khutorskaya, etc.), the implementation of the principles of education Sh. Abdurakhmanov, N.Sh. Gamkrelidze, Sh.I. Ganelin, L.V. Mikhailova, G.I. Reznitskaya, G.P. Stefanova, A.A. Semenov, R.I. Faizov, M.A. Chervonny, etc.); historical and pedagogical aspects of the development of didactic principles (A.M. Gaifutdinov, Ye.N. Medynsky, T. Parshutkina, Z.I. Ravkin, etc). The development of didactic principles at the present stage has been reflected in research (T.L. Anisov, V.S. Gudkov, V.V. Kamuz, Ya.V. Okhlopkov, T.P. Frolova, S.N. Yachinova, etc). It can be noted that in the modern pedagogical periodicals, in the opinion of the authors, the problem of designing and implementing didactic principles in Russian educational practice is insufficiently elucidated. Therefore, the purpose of this article is to turn to historical and pedagogical experience, which, in turn, will allow us to forecast trends and strategies for the development of didactic principles at the present stage. The main objective of the study is to study the phenomenon of didactic principles in the theory and practice of the Russian school in the late XIX - early XX centuries.

2. Methodology

2.1. Study area

The history of didactics is characterized by a steady desire of researchers to identify the general principles of education and on their basis to formulate those essential requirements, observing which teachers could achieve lasting results in teaching in different historical epochs. With the development of the theory and practice of teaching, the discovery of new regularities in this process, new teaching principles were formulated, the old ones were modified, so they are historically transitory. The principles of teaching are dynamic and depend on historical conditions, since at each new historical stage, there are requirements to pedagogical practice.

In this article, we will consider the development of didactic principles in the theory and practice of the Russian school in the late nineteenth and early twentieth centuries. The choice of the territorial and chronological framework of the study is due to the fact that it was during this period that global cultural, historical and socioeconomic changes took place in Russia that influenced the educational policy of the Russian state. In the XIX century. the improvement of school education required a serious scientific basis, so from the second half of the XIX century. The time of intensive searches for increment of methodical knowledge begins. The development of methodology as a science is largely determined by the improvement of didactic principles.
2.2. Methodology

To solve this problem, a set of historical pedagogical methods was used: a comparative historical analysis of historical and pedagogical sources, chronological, historical-retrospective, constructive-genetic, comparative-comparative (synthesis, analysis, analogy, etc.), a generalization of historical and pedagogical data, obtained in the study of primary sources.

The source base of the research is presented by archival materials, pedagogical periodicals of the late XIX - early XX centuries, normative legal documents of the period under study and modern dissertation research on the problem under study.

The methodological basis of the research is modern philosophy and methodology of pedagogical science. Within the framework of the study, gnoseological principles are of particular importance: the unity of the logical and historical in the study of social phenomena, the interrelationship of theory and practice in the process of scientific cognition, the principle of systemic nature, which presupposes the consideration of historical and pedagogical phenomena from the point of view of their integral characteristics; the principle of determinism, considering an object in a system of cause-effect relations; the principles of scientific and pedagogical research: a concrete historical study of social and pedagogical phenomena in all the diversity of their connections, dependencies and mediation; the dialectical unity of the general and the special in pedagogical phenomena.

In Russia, the late XIX - early XX centuries, in the center of attention of the methodologists was the question: "how to teach to learn" (11, P.223-224), there was a polemic about the essence of the methodology. For example, the pedagogue-methodologist of that period, S.I. Shokhor-Trotsky, gave the following definition: "The methodology of one or another academic subject is the application of didactic provisions to the teaching of this subject" (17). Actually teachers used didactic principles: visibility, strength of knowledge, consciousness and activity, accessibility (9).

The principle of visibility of learning is one of the most famous and used principles from ancient times. Its importance was emphasized by many foreign ones (Y.A. Komensky, A. Distervegh, etc.) and Russian teachers (K.D. Ushinsky, V.P. Vakhterov, N.A. Korf, etc.). During the studying period, the problem of using visualization in the practice of primary and secondary education was paid much attention to teacher courses and congresses, as well as in the periodical pedagogical press. Since the 60-ies of the XIX century, journals like "Russian School", "Journal of the Ministry of Education", "People's Teacher", "Free Education", etc. published articles on the use of clarity in the classroom, emphasizing the following: "Pedagogical thought has long recognized the visual method of instruction as the most rational method especially young children, and pedagogical practice in every possible way tries to implement it, as far as modern conditions of school reality permit "(12. P. 120).

The use of the principle of visibility in various lessons was the subject of discussion at the pedagogical councils of gymnasiums. Attention was drawn to the fact that it is important to take into account the principle of visibility when studying different subjects. For example, the teaching of natural history and geography should be based on a method such as an excursion, where the pupils would have the opportunity to observe natural phenomena "... nature cannot be studied without observations and experiments ..." (5. Sheet 51). Teachers of mathematics pointed out that in the study of planimetry - a drawing, and in the study of stereometry - drawing drawing is the most natural visual aids. With the passage of stereometry, it is sometimes useful to resort to the simplest visual aids (several pencils and a table), as well as to more complex grants (the Platonic solids model). Sometimes it is useful to make the students themselves manuals of paper and wire (19. P.126-127)

The use of visual aids was promoted by the Pedagogical Museums, which had a large collection of visual aids in different subjects. As noted in the report on the activities of the Mobile Educational Museum in Krasnoyarsk in 1904, "with every year the principle of visibility wins the proper place in the school." This is confirmed by "an increase in the numbers of issued items and the number of extraditions": if in 1900 the number of issued
Visual aids teachers considered as a necessary condition for good teaching. It was emphasized that visual aids for teaching arithmetic in prep classes are necessary:
- to develop a proper ability to consciously count (cubes, pebbles, etc.);
- to develop a clear idea of the decimal number system;
- for the production of addition and subtraction of multivalued numbers;
- for the proper assimilation of correct representations and certain units of measure "(models of arshine, foot, meter, pound, quaternary, liter, kilo)" (19. P.126-127)

At all times an important didactic principle was the principle of the strength of knowledge. At the final and transfer examinations, when inspecting gymnasiums, there were shortcomings in the setting of the school case in secondary general educational institutions:
- in mathematics the students found it difficult to use the theorems that had been passed before;
- in Russian and universal history, students find it difficult to reproduce the sequence of the most important events in the epochs;
- in the history of literature revealed the ignorance of writers and epochs (5. Sheet 59);
- in geography to develop the ability of students to navigate in geographic maps; to focus attention on the natural wealth of countries, to show "... than cities and countries are remarkable historically, ... what are the crafts and cultural development of different peoples, etc. ..." (5. Sheet 51. back).

To eliminate these remarks, the following decisions were taken at the teachers' councils:
- at the Russian language lessons, in addition to detailed grammatical analysis of words and sentences in the articles read, to offer an analysis of the content of the reading: mark and convey the main thoughts, establish a link between them, etc.;
- in the lessons of ancient languages, after analyzing and translating the chapters of classical readings, to arrange discussions "that would lead to an understanding of the essence and spirit of classical literature ... this is precisely the main meaning of classical education" (Ibid);
- In the lessons of the Law of God, occupations should be of the character of a live pastoral conversation;
- in the lessons of natural history and geography actively use observations and experiments, arrange excursions.

As for the strength of knowledge in geography, this problem is due primarily to the shortage of teachers in this subject: most geography teachers did not take a systematic course and "... had no opportunity to get acquainted on the university bench with the methods of teaching it" (a significant part of the geography teachers graduated from the historico-philological faculty). The complexity of obtaining knowledge as a result of self-education in geography lies in the "vastness of the field of study and the uncertainty of its boundaries." Even after achieving certain successes in self-education, the teacher becomes confronted with the problem "how to make this subject really interesting and useful for its students?" (1. P.189). To address this problem, the Commission for the Transformation of Secondary School, approved by the Ministry of Public Education, considered this issue and proposed the retraining of teachers through pedagogical courses (13). The commission designs "the organization of pedagogical congresses and temporary courses on subjects of teaching in university cities, business trips within Russia and abroad, the opening of pedagogical museums, the maintenance of well-stocked libraries at educational institutions, etc. For example, in St. Petersburg in December 1902, within the framework of the Eleventh Congress of Naturalists, at the section of the geography of this congress in the Pedagogical Museum, the "Approximate Geographic Cabinet of the Secondary Educational Institution" was demonstrated. The exhibition-cabinet consisted of several departments:
- what does the teacher need for self-education (teaching aids, maps, atlases, periodicals, reference publications);
what is necessary for the teacher and students for their joint work (textbooks, textbooks, globes, planetariums, relief maps, geographical pictures and tables, magic lights, etc.);
- practical classes of students in geography (the work of students on cartography, albums, collections of nature, herbarium, etc.);
- Excursion department (guidebooks, excursion reports and photographs) (16. P.76-77).

The pedagogical community proposed the creation of the Society at the St. Petersburg University "to promote the study and teaching of geographical knowledge" in order to improve the professional level and improve teaching methods. The objectives of this Society should be the following: the organization of properly organized permanent or temporary lectures and conversations of professors on earth sciences; periodically held congresses of geography teachers; popularization of geographical knowledge in the form of public lectures and readings; the organization of geographical excursions, etc. (1. P.190-191). After all, "School teaching, stay in school has a price only insofar as it combines the permanence of classes, ... a steady rise in knowledge, the assimilation of a new without leaving gaps in the passed" (14. P.2).

Everywhere in the reports of the inspectors of the educational districts it was pointed out that the noted shortcomings largely depend on "external unfavorable conditions of teaching: overcrowding of classes, excessive number of lessons for individual teachers, etc." (5. Sheet 51). However, at the same time teachers need to "... constantly and persistently strive to ensure that students own the passed parts of the subject and for this reason it is possible to return to the most essential of the subjects more often" (5. Sheet 51. back).

It has been repeatedly noted that we can speak about the strength of knowledge only when knowledge is accessible and understandable to students "so that the subject of education is made accessible to the majority, it is necessary to conform with the development of students" (10. P.152). In the general education school, it is necessary to train not mathematicians, but all pupils to teach mathematics. It is not uncommon for cases when, with sufficiently large difficulties for students, teachers tend to think that "such pupils are incapable of mathematics. ... there is nothing to worry about: they still will not understand " ( 10. P.151). It was pointed out that the introduction of additional tasks or the change in hourly planning could contribute to the elimination of this shortcoming, and "... in all subjects there should be a curriculum of teaching, with as much detail as possible with the distribution of the teaching material in quarters of the year, because the courses are only possible then successfully and to go through thoroughly when the teacher has a clear idea of the amount of material and the time it takes for the pupils to assimilate it. " (2. Sheet 4).

These programs were considered and approved at the beginning of the academic year in subject commissions and "... for the development of them were made for the discussion of the teachers' council". At the beginning of the school year, the requirements were set, which should be met by written exercises, as well as the methods of conducting them. For "... better familiarization with the course of studies and monitoring them as often as possible, inspectors should attend lessons of teachers and point out to them the shortcomings noted." In addition, the Report of the Chief Inspector of the Schools of Eastern Siberia on the activities of teachers on January 8, 1909 It was said that in the lessons it is necessary to call students more often to check their knowledge, because they are engaged only because of the marks, the more diligently they will prepare for lessons, the more there will be the probability that they will be called (2. Sheet 4. back).

In the period under study, the question was raised of how to organize the learning process in such a way that the knowledge gained was strong and not forgotten. "Caring for improving the setting of the educational case, it must be firmly remembered that the educational part deserves no less serious attention from pedagogical personnel. Dry formal attitude to teaching duties, cannot have good results, because unable to develop in pupils a proper love for studies. Curiosity, which is a necessary condition for successful learning, can be developed in students only when teachers show sincere care for the spiritual development of their entrusted pupils "(5. Sheet 52). In connection with this, the leadership of educational institutions was asked to "... develop methods for testing the knowledge of students, in which the annual mark for each subject would not be a formal only and often completely
random assessment of knowledge, but a real indicator of mastering by the students of this subject." At the same time, knowledge of an object should be understood not as a mechanical memorization of certain parts of the course, but as an introduction to it, in which a completely clear idea of the object passed in its consecutive development is obtained in the mind. Such methods can be periodic surveys related to the completion of a particular department of the course, written reports on the past, and other measures that pedagogical councils will be deemed to give the greatest certainty that students really know the course and that the teaching of this subject is advisable in pedagogical (the MNP circular to the trustee of the school district) (3. Sheet 17).

The principle of the strength of knowledge is inextricably linked with the principle of accessibility. The principle of accessibility follows from the requirements developed by the centuries-old practice of learning, on the one hand, and the patterns of age development of students, the organization and implementation of the didactic process with the level of development of students, on the other.

The implementation of the principles of education largely depends on the personal qualities of the teacher, their professionalism, attitude to their duties. It was noted that those teachers who are consistent in their requirements, are moderately strict, methodical, have high enough indicators in the progress of students (2). "It all boils down to charging students with the example and experiences of their teacher" (15. P.217). The authority of the teacher-mentor should play a major role in teaching and upbringing.

The reports of inspectors of schools on the activities of teachers noted the work of teachers of educational institutions, their strengths and weaknesses, the effectiveness of the work. For example, work as a teacher of Latin and French languages of the Krasnoyarsk male gymnasium N. Gluk was evaluated in the report as the best in the whole gymnasium. "According to the results achieved by him, he is the best teacher of the gymnasium: his students firmly and thoroughly learn the course. Although he is strict and demanding, but the pupils treat him with great respect and love for a fair assessment of their knowledge "(2. Sheet 1.). Special attention was paid to the teachers and that they must follow the modern achievements of the pedagogical science and practice, their professional level and the level of knowledge of the students depend on this. "The teacher of the Russian language of the Krasnoyarsk male gymnasium Nikolai Armenian is an experienced teacher who loves his subject and always follows literature him) (Ibid).

Important for the teacher is not only deep knowledge of his subject, but also faithful performance of his duties, which was noted in the reports on the work of teachers of educational institutions. For example, in the report on the results of the work for the 1908/09 academic year on the Krasnoyarsk Men's Gymnasium, the following was stated: "...Literature teacher Alexander Onosovsky, a dedicated person and very conscientiously related to the performance of his duties. He explains the lessons well, knows how to interest the students and make them love their subject. His treatment with his students is even and unbiased, so they treat him with great respect (2. Sheet 1. back). Despite the fact that during the period under review much was said about the humanization of the educational process, the issue of student discipline was quite relevant. It was noted that reasonable rigor only promotes the assimilation of the material. The same teachers, who were not very demanding, did not show high results in training in their subject. In this regard, the following conclusions were drawn: "The teacher of the ancient languages of the Krasnoyarsk male gymnasium Nikolai Smirnov knows his subject well, but is so weak and characterless that he is absolutely unable to maintain discipline in the classroom. In consequence of his undemanding and weak, the successes of his students are not entirely satisfactory "(2. Sheet 1. back).

At the turn of the century, the Twenty Rules of Good Learning (7) were published in the journal Narodnoe obrazovanie. These rules were formulated in accordance with the principles of training. The Rules stated the following:

- the amount of training should correspond to the spiritual growth of children (the principle of naturalness);
- "the teaching must go with strict consistency ... of every purpose its time" (the principle of
consistency); the "simplicity and strength of the language" (the principle of accessibility) should have meaning;
- "... In general, external senses should be exercised ... well, if an eye comes to the aid of the teacher ..." (principle of visualization);
- "without a constant repetition and resort to previously learned, much of the teaching will be lost without a trace" (the principle of strength).

The rules also indicated trust and love for students as "a necessary condition for true learning" (Ibid).

3. Results
The authors of the article made an attempt to reveal the reflection of the state of the problem of the development of didactic principles in the late XIX - early XX centuries. in the domestic theory and practice of teaching. The role of didactic principles in the Russian school of the late XIX - early XX centuries is shown: the principle of visibility, the principle of the strength of knowledge, the principle of consciousness and activity and the principle of accessibility. The main tendencies of the development of the content of the didactic principles of instruction during the period under study in Russia are formulated.

4. Conclusions
The historical and pedagogical analysis allowed the authors of the article to formulate the main tendencies in the development of didactic principles in the theory and practice of the Russian school in the late nineteenth and early twentieth centuries: the concretization of didactic principles and their implementation in new and diverse teaching methods; participation of the pedagogical community in the discussion and implementation of didactic principles; details of didactic principles in methodological and pedagogical rules; advanced training and retraining of teachers; the role of the teacher's personality in the implementation of didactic principles. These trends can be traced in the strategy and tactics of the development of Russian education at the present stage.

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